

THE OCCURRENCE OF *APPIAS OLFERNA* SWINHOE
(LEPIDOPTERA: PIERIDAE) ON CHRISTMAS ISLAND,
INDIAN OCEAN

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Abstract

Appias olferna Swinhoe is newly recorded from Christmas Island, Indian Ocean. Both sexes are illustrated, the species' identification discussed and field observations documented.

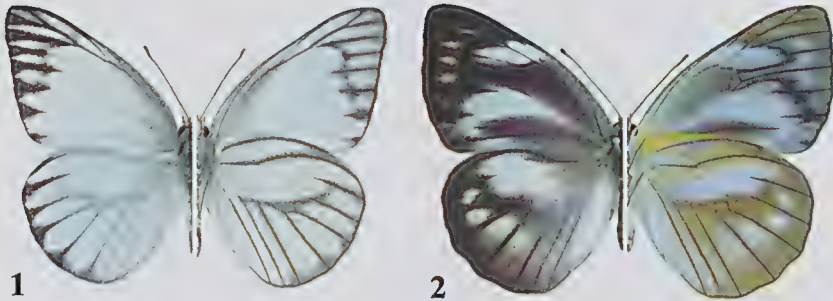
Introduction

The genus *Appias* Hübner is a wide-ranging pantropical group of 37 Neotropical, Afrotropical and Indo-Australian species (Parsons 1998). About 30 species are found in the Indo-Australian Region, with four currently known to extend into Australia (Braby 2000), where they are rapid flyers and frequent primary and secondary forests. Males, in particular, patrol watercourses where they imbibe mineralised water from bordering damp sand (Parsons 1998). The life histories of most species are not well known but larvae have been recorded feeding on *Capparis* species (Capparaceae) (Parsons 1998, Braby 2000). During a field trip in January and February 2003 to Christmas Island, Indian Ocean, one of us (AIK) collected a series of an *Appias* species that differed from *A. paulina micromalayana* Fruhstorfer, already known from Christmas Island (Moulds and Lachlan 1987). In this paper it is identified as *A. olferna* Swinhoe, previously unrecorded from Australia (Moulds and Lachlan 1987, Braby 2000).

Appias olferna Swinhoe (Figs 1-2)

Material examined. CHRISTMAS ISLAND (INDIAN OCEAN): 8 ♂♂, 29.i.2003 (3), 2.ii.2003, 7.ii.2003, 10.ii.2003 (3); 9 ♀♀, 15.i.2003, 1.ii.2003 (4), 3.ii.2003, 5.ii.2003, 10.ii.2003 (2), A.I. Knight (in AIK and TAL collections).

Comments. *Appias olferna* is a distinctive but variable species (Yata 1981, Inayoshi 2001), although specimens collected on Christmas Island did not vary and were as in Figures 1 and 2. It lies in the *libythea* group of *Appias*, characterised by bearing two wing-folds in the cell of the forewing (Yata 1981). Within this group *A. olferna* can be separated from the closely related *A. libythea* (Fabricius) by having a submarginal black band on the male forewing and a row of white submarginal spots in the female (Yata 1981). There are also distinct differences in the male genitalia between the two species (Yata 1981). *A. olferna* is one of the most common species of *Appias* and is distributed from Indo-China to the Malay Peninsula, Sumatra, eastern Java and western Philippines (Yata 1981). Christmas Island lies about 400 km due south of eastern Java. *A. libythea* is known from India (Yata 1981).



Figs 1-2. *Appias olferna* Swinhoe. (1) male: upperside [left], underside [right], forewing length 26 mm, Christmas Island, 10.ii.2003, A.I. Knight; (2) female: upperside [left], underside [right], forewing length 29 mm, Christmas Island, 1.ii.2003, A.I. Knight.

Field observations

Both sexes of *A. olferna* were observed over most of the island, particularly in rainforest areas, but at times in open forest and suburban areas. Males were only observed flying in bright sunshine, most often flying rapidly along the edges of rainforest and road cuttings, where they would only settle very occasionally and briefly on blossom. In these flight paths males would often dogfight and spiral together. Females flew not more than a metre above ground in a fluttering zigzag manner, often in undergrowth, and settled often.

Acknowledgements

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